



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,384	12/10/2001	Akio Oobayashi	109809	8263

25944 7590 10/06/2004

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

KNABLE, GEOFFREY L

ART UNIT	PAPER NUMBER
----------	--------------

1733

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,384

Applicant(s)

OOBAYASHI ET AL.

Examiner

Geoffrey L. Knable

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 5-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The last two lines of claim 5 as amended define the presence of "means for heating and/or cooling the liquid." However, the only reference in the claim to a "liquid" is in the context of the "preprocessing machine" and the original disclosure does not describe cooling means as part of the preprocessing means (i.e. cooling is only described for the post cure inflation). Further, there is no single means described for both heating and/or cooling as now claimed. As such, the reference to "means for heating and/or cooling the liquid" in the context of the liquid supplied by the preprocessing means is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter.

Along these same lines, the reference in new claim 7 to a "heat exchanger" in the context of the heating means for the liquid in the preprocessing machine is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession

of the claimed invention, i.e. it is considered to be new matter. The only reference to a heat exchanger is in the context of the cooling in the post cure inflation (element "114").

New claim 8 defines a first transfer device that transfers the tire to the vulcanizer and a second transfer device that transfers the tire from the vulcanizer to a post cure inflator. The original disclosure however defines that the same transfer device "98" performs both of these steps. As such, this description of two different transfers devices to effect these steps is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter. While the original disclosure does describe a second transfer device ("118"), it does not perform the step that is presently claimed.

3. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 578,106 to Bridgestone taken in view of [Ulm (US 3,621,520) and/or Soderquist (US 2,963,737)] and further in view of [Laurent et al. (US 5,853,526 – newly applied) and/or Galleithner et al. (US 3,864,189 – newly cited)] and JP 02-22016 to Bridgestone (newly cited).

EP '106, Ulm and Soderquist are applied for the same reasons as set forth in the last office action. As to the new requirement that a "liquid" is supplied into the bladder for preliminary inflation, EP '106 does not describe how the bladder is inflated to form the toroidal structure. Laurent et al. (note esp. col. 3, lines 9-24) and Galleithner et al. (note esp. col. 1, lines 50-57) are both directed to bladder assemblies that are used to form green tires in toroidal shape and in particular evidence that it is understood in this

art that a liquid can suitably and effectively be used in this role – to use such would therefore have been obvious. As to the new requirement that the cooling be accelerated by supplying a low temperature “liquid,” JP ‘016 discloses that the efficiency of cooling in a post-cure inflation step can be improved by inflating the tire with cooled water – note the abstract and figures. To use cooled water to improve the cooling in the post inflation would therefore have been obvious and lead to only the expected results.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 578,106 to Bridgestone taken in view of [Ulm (US 3,621,520) and/or Soderquist (US 2,963,737)] and further in view of [Laurent et al. (US 5,853,526 – newly applied) and/or Galleithner et al. (US 3,864,189 – newly cited)] and JP 02-22016 to Bridgestone (newly cited) as applied to claim 1 above, and further in view of Mitamura (US 6,620,367).

Mitamura is applied for the same reasons as set forth in the last office action.

5. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitamura (US 6,620,367) taken in view of [Laurent et al. (US 5,853,526 – newly applied) and/or Galleithner et al. (US 3,864,189 – newly cited)] and [Brown (US 1,612,565 – newly cited) or Mattson (US 4,861,253 – newly cited)].

Mitamura discloses an apparatus for producing a tire including a preprocessing machine where the green tire is supported using a pair of holders that support a bladder (20), the holders being joined and the bladder being inflated with heated/high temperature fluid (e.g. note bladder mechanism “2” in pre-processing unit “3” in fig. 4). This tire/holders/bladder mechanism assembly is then transferred with transfer means into a vulcanizing press “4” (e.g. note figs. 1 and 6) where heat medium is supplied and

the tire vulcanized. This thus is considered to suggest an apparatus that satisfies the requirements of claim 5 except that there is no suggestion to provide the inflating means in the preprocessing unit with a capability for supplying a "liquid" or for means to circulate the liquid through the bladder.

As to the requirement that the preprocessing unit include means for supplying/circulating a heated "liquid" into the bladder for preliminary inflation, Mitamura suggests preinflation with heated fluid but does not suggest a "liquid". Laurent et al. (note esp. col. 3, lines 9-24) and Galleithner et al. (note esp. col. 1, lines 50-57) are both directed to bladder assemblies that are used to form green tires in toroidal shape and in particular evidence that it is understood in this art that a "liquid" can suitably and effectively be used in this role. Further, Brown and Mattson provide evidence that it is well known and conventional in this art to utilize heated water, the water being maintained heated by circulation, in a tire to effect tire vulcanization. Since it is known to use a liquid to inflate a bladder to toroidal shape both before vulcanization and during vulcanization, it is considered to have been obvious to utilize such for the preliminary heating taught by Mitamura with a reasonable expectation of success. Since Mitamura desires that the fluid be heated, circulation of the fluid and heating thereof by e.g. heat exchangers would have also been obvious in light of Brown and Mattson, these references clearly evidencing that in this art when heated fluid is used, it is known and conventional to circulate the fluid and further use heat exchangers to control the temperature. It would have been readily apparent that such circulation helps maintain uniformity of the liquid temperature.

6. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendments to the claims and the newly presented claims.

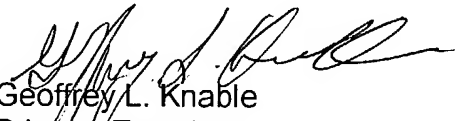
7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
October 3, 2004